

U.S. ENVIRONMENTAL PROTECTION AGENCY

**TECHNICAL ENFORCEMENT SUPPORT
AT
HAZARDOUS WASTE SITES**

**TES IV
CONTRACT NO. 68-01-7351
EPA WORK ASSIGNMENT NO. R07018
RCRA LAND DISPOSAL RESTRICTIONS INSPECTION
AT
RAY SCHUMANN AND ASSOCIATES, INC.
MOD009738147**

**JACOBS ENGINEERING GROUP INC.
JACOBS WORK ASSIGNMENT NO. 05C01700**

JUNE 30, 1989



**R00129141
RCRA RECORDS CENTER**

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ATTACHMENTS

1. Ray Schumann and Associates, Inc. Facility Records
2. Ray Schumann and Associates, Inc. Photographs
3. Land Disposal Restrictions Checklist
4. Notice of Violation, Confidential Business Information Form and Receipt for Documents

RCRA LAND DISPOSAL RESTRICTIONS REPORT

PREPARED FOR

**U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION VII
TOXICS AND WASTE MANAGEMENT DIVISION
COMPLIANCE RESPONSE BRANCH**

Facility: Ray Schumann and Associates, Inc.
1347 January Avenue
St. Louis, Missouri

EPA ID Number: MOD 009738147

Date of Inspection: June 8, 1989

Jacobs Representatives: Greg C. Uetrecht, Geological Engineer
Laurie M. Smith, Industrial Hygienist

Facility Representatives: Dennis Schumann, Secretary
James Schumann, Treasurer
Walter Puryear, Environmental Property
Associates Incorporated (Consultant)

Report Prepared By: Laurie M. Smith

Report Date: June 30, 1989

**RCRA LAND DISPOSAL RESTRICTIONS INSPECTION
RAY SCHUMANN AND ASSOCIATES, INC.
ST. LOUIS, MISSOURI
REGION VII WORK ASSIGNMENT NO. R07018**

ABSTRACT

Hazardous Waste <u>Code</u>	Hazardous Waste <u>Stream</u>	Disposal <u>Facility</u>	Disposal <u>Method</u>
F002/F003	Perchloroethylene n-Butyl Alcohol	Rineco Chemical Industries	Reclamation

BACKGROUND

Nature and History of Operation

The Ray Schumann and Associates, Inc. facility is located at 1347 January Avenue, St. Louis, Missouri. The facility is a full quantity generator that is involved in the manufacture of both off-set and flex graphic printing plates. Operations have been maintained at the current facility for approximately six years.

The facility is currently generating one waste stream that is manifested off-site. This waste stream is identified as F002/F003 hazardous waste which consists of n-Butyl alcohol and tetrachloroethylene. This waste is handled by Rineco Chemical Industries of Benton, Arkansas (EPA ID #ARD 981057870). Previous to Rineco Chemical Industries, Clayton Chemical of Sauget, Illinois was used. This waste stream is generated as a result of printing plate (off-set and flex graphic) operations in quantities of approximately one 55-gallon drum per quarter year. Solvents utilized in the printing process are distilled on-site. Waste waters generated as result of on-site processes are discharged to the sewer.

As a result of this Land Disposal Restrictions Inspection, a Notice of Violation (NOV) was issued to the facility citing the following:

40 CFR 268.50 (a)(2)(i) - Each container must be clearly marked to identify its contents of F-solvent waste.

Regulatory History

Ray Schumann and Associates, Inc. submitted an original Notification of Hazardous Waste Activity on December 3, 1983. The Notification identified the facility as a generator of K030, F003, and U031 wastes. As is explained in a later portion of this report, it was discovered that the facility actually generated only F-listed wastes.

INVESTIGATION**Record Review**Waste Analysis Plan (WAP)

As required by 40 CFR 268.7, the generator must test his waste or an extract of his waste (using the TCLP), or use knowledge of his waste to determine if the waste is restricted from land disposal. Ray Schumann and Associates, Inc. employs knowledge of process to characterize their waste based on laboratory and supplier data.

Manifests/LDR Notifications/Waste Analyses

Generators are required, per 40 CFR 268.7 (a)(1), to notify the treatment facility in writing of the appropriate treatment standards set forth in 40 CFR 268, Subpart D with each shipment of LDR waste. Ray Schumann and Associates, Inc. is currently shipping one waste stream offsite. All shipments are designated for reclamation at Rineco Chemical Industries, ARD 981057870. A copy of the most recent manifest, dated 05/09/89, is enclosed as Attachment 1. As indicated previously in this report, this waste stream consists of still bottom from the recovery of perchloroethylene and n-Butyl alcohol. The accompanying waste profile sheet (Attachment 1) indicates the waste stream includes F002/F003 constituents. Notification statements which included appropriate treatment standards have accompanied shipments offsite as required by 40 CFR 268.7 (a)(1), however copies were not kept at the facility.

Laboratory Analysis

Ray Schumann and Associates, Inc. employs knowledge of process to characterize and appropriately code their hazardous waste. No laboratory analyses have been performed for verification. The facility has, however, had their waste tested for the following parameters: BTU/lb., Sulfur (%), and Chloride (%). This laboratory test report is included in Attachment 1.

Site Inspection

On June 8, 1989, a RCRA Compliance Evaluation Inspection (CEI) for the Land Disposal Restrictions (LDR) was performed by Jacobs Engineering Group Inc. (Jacobs) personnel at Ray Schumann and Associates, Inc. This inspection was performed under the Technical Enforcement Support (TES) IV Contract, Work Assignment No. R07018, U.S. Environmental Protection Agency (EPA), Region VII.

The inspection was conducted under authority of Section 3007 of the Resource Conservation and Recovery Act, as amended.

This inspection consisted of a discussion of the facility's RCRA background, a review of the waste management practices, observations made during the investigation, a discussion of investigation and file review findings, and a listing of potential violations. This report is supplemented with photographs to support some of the observations. Documentation requested from Ray Schumann and Associates, Inc. during the investigation and copies of the Land Disposal Restrictions checklist are attachments to this report.

An inspection of the RCRA hazardous waste management practices at the Ray Schumann and Associates, Inc. facility was conducted on June 8, 1989 by Greg C. Uetrecht and Laurie M. Smith of Jacobs Engineering Group Inc. representing EPA, Region VII. Jacobs personnel were met by Mr. Dennis Schumann, Secretary.

Jacobs personnel presented Mr. D. Schumann with an EPA letter of introduction and explained the purpose of the inspection and the procedures that would follow. The Confidential Business Information (CBI) Form was explained to Mr. D. Schumann who did not request confidentiality for Ray Schumann and Associates, Inc. Mr. D. Schumann provided a brief overview of the facility processes. Mr. Walter Puryear of Environmental Property Assessments Incorporated, (consultant to the facility), joined the inspection as Jacobs personnel reviewed the facility's files.

After reviewing Ray Schumann and Associates, Inc.'s records and interviewing Mr. D. Schumann and Mr. Puryear, a determination was made that one RCRA hazardous waste stream is generated at the facility. This waste stream is:

- o Still bottoms from the recovery of waste solvents (primarily perchloroethylene and n-Butyl alcohol).

Ray Schumann and Associates, Inc. generates hazardous waste by the process of making printing plates (both off-set and flex graphic). The exposed plate is photomechanically exposed onto the light sensitive photopolymer material and put into a washout processing machine (Cyrel 3040 processor - photograph 1) which contains both perchlorethylene - 75% and n-Butyl alcohol - 25%. The processor rotates for approximately 25 minutes to brush out portions of the negative not exposed to light. Particles brushed out are then put into an X-35 recycling unit (photograph 2) which boils to 250° F. Wastes generated as a result of this process (sludges) are accumulated in nylon bags and put into 55-gallon drums. This waste is manifested off-site as F002 waste. Solvents utilized in the printing process are recycled on-site. Virgin solvent is added as needed.

Drum Accumulation Areas

The facility had, at the time of inspection, one 55-gallon drum of waste on-site. The hazardous waste label displayed on the drum showed an accumulation date of May 10, 1989. Photograph 3 is of the hazardous waste drum storage area accommodating this drum. The facility shipped approximately one 55-gallon drum of waste sludge for reclaiming per quarter year. The storage area is within the same room as the processor and recycling unit. This area is within the facility building.

ISSUES

A meeting to out-brief Ray Schumann and Associates, Inc. representatives on the preliminary results of the LDR compliance inspection was held after all information pertinent to the inspection was gathered and examined by the inspectors. The following issues were discussed:

1. Ray Schumann and Associates, Inc. generates one RCRA waste stream subject to LDR regulation. This waste has been manifested as F002 waste.
2. Each container must be clearly labeled to identify its contents as F002/F003 waste.

LISTING OF POTENTIAL VIOLATIONS

Forms A, C, D, and E of the Land Disposal Restriction Checklist were completed and are included as Attachment 3. The potential violations identified from the document review and the site visit are summarized below:

40 CFR 268.50 (a)(2)(i) - Prohibitions on storage of restricted wastes

Each container must be clearly marked to identify its contents of F002/F003 waste.

40 CFR 268.7 (a)(1) - Waste Analysis

The generator must notify the treatment facility in writing of the appropriate treatment standards for F002/F003 waste.

ATTACHMENTS

1. Ray Schumann and Associates, Inc. Facility Records
2. Ray Schumann and Associates, Inc. Photographs
3. Land Disposal Restrictions Checklist
4. Notice of Violation, Confidential Business Information Form and Receipt for Documents.

ATTACHMENT 1
RAY SCHUMANN AND ASSOCIATES, INC.
FACILITY RECORDS

Detailed Description
Resource Recovery Process
Ray Schumann & Associates, Inc.

Spent solvent, perchloroethylene/alcohol, will be accumulated in a 55 gallon drum immediately adjacent to the plate stripper in the Plate Room (see Attachment). The drum will be checked for volume at the end of each stripping run. As the drum nears capacity, it will be connected to the Recyclene recovery unit described in Attachment . The Recyclene unit will be opened for visual evaluation of the charging chamber to ensure the integrity of the liner and cleanliness of the chamber. If necessary, the chamber will be cleaned with a hand scraper and the liner replaced. All such removals from the chamber will be treated as a hazardous waste and transferred to a 55 gallon drum maintained for storage of still bottoms. After inspection, the Recyclene will be energized. Filling, warm-up and operation are all automatic as described in Attachment.

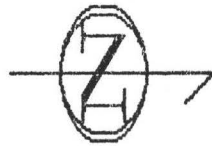
After the run is completed and the unit has cooled below the lock-out temperature, the chamber will be opened for a final visual evaluation and, if necessary, solids removal. Solids will be transferred to the satellite storage container. When full, the container will be affixed with the required "Hazardous Waste" label and moved to the waste confinement/storage area until disposal arrangements can be made.

Recovered solvent will be collected in a 55 gallon drum adjacent to the Recyclene unit. When full, the drum will be relocated to the intake for the plate stripper or returned to the chemical storage area.

The operator will document each run on a copy of the "Operating Record" form (Attachment). Only waste generated on-site from the plate stripper will be recovered. Since no other hazardous wastes or solvents are used at the facility, no formal testing protocol is necessary; and the Flowsheet, Detailed Description, and Operating Record comprise the Quality Control Program for this operation.

Dale Avenue

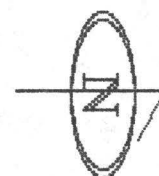
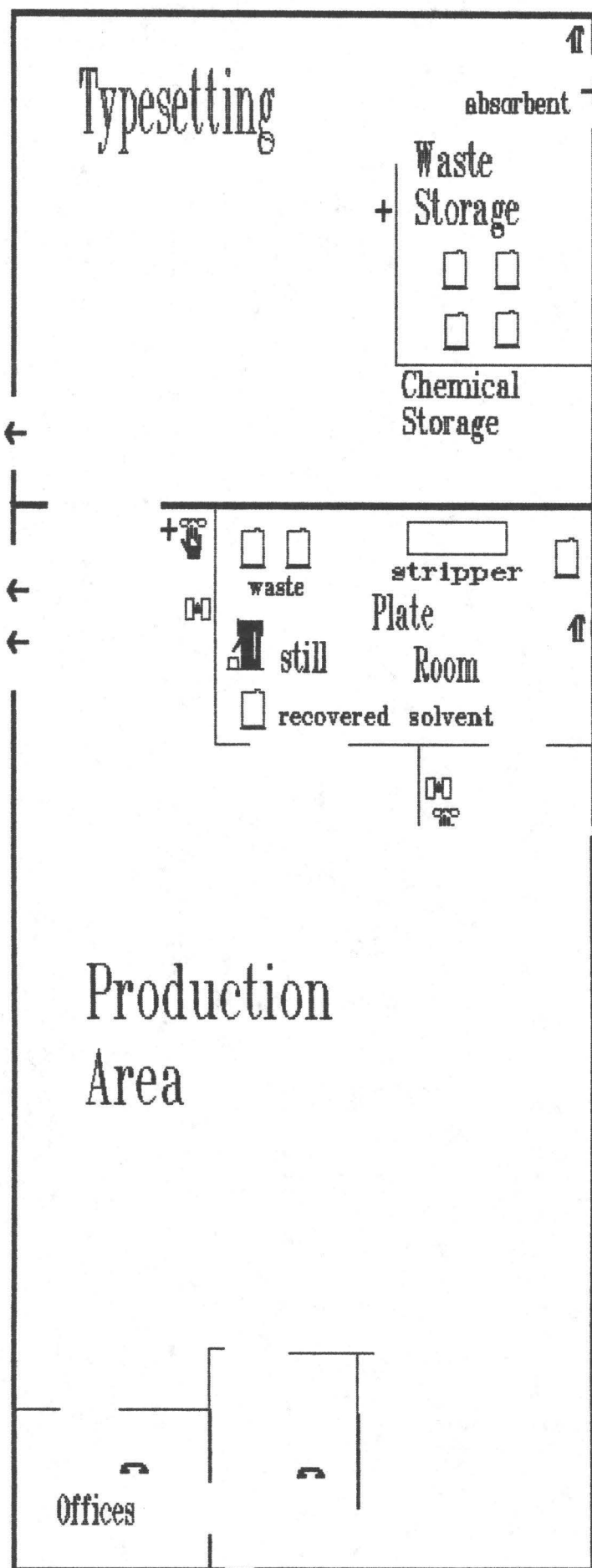
P
L
A
N
T



Ray Schumann
& Associates

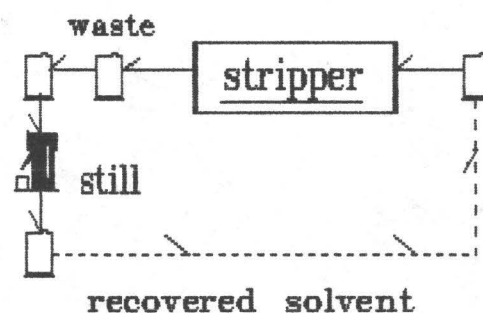
Approximate property lines

January Avenue



Ray Schumann
& Associates

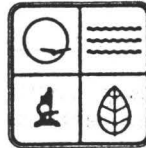
Plate Room Flowsheet...



- ☒ Protective gear
- ☒ Breathing gear
- + First Aid
- ↑ Fire extinguisher
- ☐ Drum
- ☎ Phone

PART II

Form H.W.G.-1A HAZARDOUS WASTE REGISTRATION
MISSOURI DEPARTMENT OF NATURAL RESOURCES
P.O. Box 176, Jefferson City, Missouri 65102



MISSOURI
GENERATOR I.D. NO.
If assigned.

HAZARDOUS WASTE INFORMATION

0 4 2 5 5

A form shall be completed for each type of hazardous waste generated and shall be filed with the Department of Natural Resources.

(Instructions: Print in Black Ink or Typewrite)

Section A - General Facility Information

1. Name Ray Schumann & Associates, Inc.
2. Street 1347 January Avenue
City St. Louis State Mo. Zip Code 63110
3. Sequential Waste Number 1 Total Wastes Registered 1

Section B - Hazard Classification

DNR Hazard Class: (as defined in 10 CSR 25-4.010)

1. ☒ Toxic, E P Number, D _____ 5. ☒ Listed Waste, I.D. Number UN 1897
2. ☐ Reactive, D003 (Identification numbers for the toxic and listed wastes are in Sections 10 CSR 25-4.010 (5) & (6).
3. ☐ Ignitable, D001
4. ☐ Corrosive, D002 6. ☐ Other

Section C - Generation Rate

1. A ☒ Continual Generation B. ☐ Intermittent Generation C. ☐ One-time-only generation
2. Average Generation Rate/Month If A or B above: 110 Gals /Month
3. Units (Circle One): Tons Gals Pounds Cubic Yards Empty Containers 6
(Give number & size above)

Section D

Description of Generation Process (Example: K052 Tank Bottoms (leaded) from the petroleum refining industry)

Column bottoms or heavy ends from the combined production of trichloroethylene and perchloroethylene

Section E Composition

Composition: List all the hazardous components of the waste and the concentration. List all other major components by weight percentages.

Major Components	(wt.%)	Extraction Procedure Concentration (ppm)
1. n Butyl alcohol		25%
2. Perchloroethylene		75%
3.		
4.		
5.		
6.		
7.		

Section F - Physical Data

- Physical State (Circle One) ☒ Solid ☐ Sludge ☐ Slurry ☒ Liquid ☐ Compressed gas
- Appearance and Odor: ☒ pink ☒ X
- Solubility in water
- Specific gravity (H₂O=1)
- Vapor density (Air=1)
- % by weight of volatiles at 100°C
- % by weight of volatiles at 600°C
- Boiling Point (°C)
- pH

Section G - Fire and Explosion Data

- Flashpoint (circle one, if applicable) - Pensky - Martens closed cup tester ASTM std. D-93-77 or setaflash closed tester method ASTM std. D-3278-73 °C °F
- Extinguish Media a. ☒ dry chemical, b. ☐ CO₂, c. ☐ alcohol foam, d. ☐ water fog, e. ☐ water spray, f. ☐ other, specify

Section H - Health Hazard Data

- Effects of over exposure some difficulty in breathing
- Emergency and First Aid procedure remove to fresh air; if splashed, wash with plenty of water. discard contaminated clothing in D.O.T. safety container for disposal by licensed waste hauler and licensed treatment facility.

Section I

Reactivity Data:

	Unstable	Stable	Conditions to avoid
1. Stability			
2. Incompatibility (materials)			
3. Hazardous Polymerization	May occur	May not occur	Conditions to avoid

Section J

Spill or Leak Procedure

Steps to be taken in case of spill or leak:

1. Stop the leak if it is safe to do so.
2. Notify the appropriate authorities.
3. Evacuate the area.
4. Contain the spill.
5. Clean up the spill.

Section K

Special Protection Information

1. Respiratory protection (specific types):
2. Protective gloves:
3. Eye protection:
4. Special clothing (if any):
5. Precautions to be taken in handling and storing:

Additional information regarding the material, including its physical and chemical properties, and any other relevant data.

Special instructions for handling and storage of the material.

Additional information regarding the material.

Section M - Transportation

1. Type of vehicle: a. ☒ Tractor-trailer d. ☐ Flatbed
 b. ☐ Roll-off/Lugger e. ☐ Tank truck
 c. ☐ Dump truck (with cover) f. ☐ Other _____
2. Estimated Number of shipments per year 4
3. Transporter's name Chemisphere Chemical Co.
4. Address 2101 Clayton Ave. St. Louis MO 63110
 Street City State Zip Code
644-1300
5. Telephone number _____ County _____

Section N - Disposal or Treatment Method

- | | on-site | off-site | | on-site | off-site |
|------------------------|--------------------------|-------------------------------------|----------------------|--------------------------|-------------------------------------|
| 1. a. incineration | <input type="checkbox"/> | <input checked="" type="checkbox"/> | f. landfarm | <input type="checkbox"/> | <input type="checkbox"/> |
| b. storage | <input type="checkbox"/> | <input type="checkbox"/> | g. waste pile | <input type="checkbox"/> | <input type="checkbox"/> |
| c. surface impoundment | <input type="checkbox"/> | <input type="checkbox"/> | h. resource recovery | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d. treatment | <input type="checkbox"/> | <input type="checkbox"/> | i. sewer | <input type="checkbox"/> | <input type="checkbox"/> |
| e. landfill | <input type="checkbox"/> | <input type="checkbox"/> | j. deep well | <input type="checkbox"/> | <input type="checkbox"/> |
2. Is the generator site classified as a hazardous waste facility in accordance with 10 CSR 25-77? ☒ Yes ☐ No

Disposal or treatment facility: The name of the facility where this waste is being managed.

3. Name Clayton Chemical Corp.
4. Address # 1 Mobile St. Louis MO 62001
 Street City State Zip Code

Section O - Confidentiality

1. Please keep the information on this specific waste confidential.
☐ Yes ☒ No
2. If yes is checked above, a justification for claiming confidentiality must be submitted in accordance with Section 260.430 of the Missouri Hazardous Waste Management Law.

DATE

SIGNATURE

WASTE CHARACTERIZATION

DATE _____

DU PONT CODE _____

CONTRACTOR _____

EPA CODES F002, F003

OTHER CODES _____

I. LOCATION _____

EPA I.D.# _____

II. NAME OF WASTE SPENT CYREL® SOLVENT

III. COMPOSITION

A. MAJOR COMPONENTS	C. ONE TIME OR TYPICAL ANALYSIS	D. CONCENTRATION RANGE %		E. EXPOSURE LIMITS	
		UPPER	LOWER	+ACGIH	++OSHA
1. Perchloroethylene	72%	73	71	100 ppm	
2. N-Butanol	24%	25	24	100 ppm	
3. Synthetic Rubber	3%	4	2		
4. Methacrylates/Acrylates	< 1%				
5. Organic Fillers	< 1%				

B. TRACE ELEMENTS NOT LISTED ABOVE (PPM)

CN < 5 Ag 0.06 As 56 Ba < 0.5
 Cd < 0.025 Cr 0.075 Cu 0.055 Hg < 0.02 Ni < 0.1 Pb < 0.25 Se 0.014
 Zn 0.143 S* 35 Cl* < 0.1 N* 85.1 P* < 0.15 F* 15 I* 1

Other _____

IV. PHYSICAL STATE @ 25°C (CIRCLE): SOLID LIQUID SLUDGE LIQUID/SOLID PHASES GAS

OTHER _____

SOLIDS : IS THERE A DUSTING HAZARD IF CONTAINERS ARE OPENED? _____

LIQUIDS : MULTIPLE PHASES? No VOL % OF EACH PHASE _____

LIQUIDS & SLUDGES : CAN THE WASTE BE PUMPED? Yes POURED? _____

LIQUID/SOLID PHASES : % FREE FLOWING LIQUID LAYER _____ (VOLUME %)

GASES : PRESSURE OF CONTAINER _____ PSIG

V. CONTAINMENT (CIRCLE)

BULK _____ (MC _____)

55-GAL. STEEL DRUMS (DOT _____)

30-GAL. FIBER DRUMS (DOT _____)

5-GAL PAILS _____

OTHER _____

APPROX. WT. PER CONTAINER _____ LBS.

VI. PROPERTIES (CIRCLE)

COMBUSTIBLE (FP 120 °F) IGNITABLE (FP _____ °F)

(CLOSED CUP) (CLOSED CUP)

CORROSIVE OSHA CARCINOGEN

pH 5.6 ODOR (YES) NO Perchloroethylene

Btu/LB. N/A COLOR Light Red

REACTIVE No

TOXIC No

OTHER _____

VII. D.O.T. SHIPPING NAME Waste Combustible Liquid N.O.S.

D.O.T. HAZARD CLASSIFICATION Combustible Liquid

U.N. NO. _____ N.A. NO. N.A. 1993

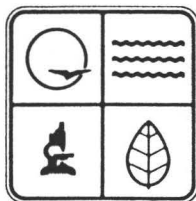
VIII. VOLUME (FOR PLANNING PURPOSES ONLY)

THIS REQUEST _____

ANNUAL _____

IX. REMARKS

*Organically bound only



MISSOURI DEPARTMENT OF NATURAL RESOURCES

P.O. Box 1368
1915 Southridge Drive
Jefferson City, Missouri 65102
(314) 751-3241

February 23, 1984

Mr. James Schumann
Ray Schumann & Associates Inc.
1347 January Avenue
St. Louis, MO 63110

Dear Mr. Schumann:

Enclosed are the hazardous waste registration forms for the state of Missouri. As soon as the two forms are completed and returned to this agency, your company will be issued its Missouri and Federal Environmental Protection Agency I.D. numbers.

If you have any questions, please contact this office at (314) 751-3241.

Sincerely,

Kenneth Purvis, Jr.

Kenneth Purvis, Jr.
Environmental Specialist
Planning & Management Section
Waste Management Program

KP:mlm

Enclosures

Christopher S. Bond Governor
Fred A. Lafser Director

Division of Environmental Quality
Robert J. Schreiber Jr., P.E. Director

RAY SCHUMANN & ASSOC., INC.
1347 JANUARY AVE.

: ST. LOUIS

: MO

: 63110

: JAMES SCHUMANN

Generator USEPA I.D.#: MOD009738147 Phone: 314-645-8700 IL #: 9291895224

CLAYTON CHEMICAL COMPANY has receipt of the following shipments of
manifested material from your company. Please contact us of any discrepancy.
Thank you for your support and the use of our service!:

Manifest # & Class...	DOT code:	Waste#:	Gallons:	Density:	Handle:	Date:
123312 C	15	F002	660	10.0	S01	85/05/30
123313 C	15	F002	265	10.0	S01	85/09/04
123314 C	15	F002	275	10.0	S01	85/12/04



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VII
726 MINNESOTA AVENUE
KANSAS CITY, KANSAS 66101

CERTIFIED MAIL

RETURN RECEIPT REQUESTED

Mr. James Schumann
Ray Schumann & Associates Inc.
1347 January Avenue
St. Louis, MO 63110

RE: Request for Information

Ray Schumann & Associates Inc.
St. Louis
MOD980852735

REQUEST FOR INFORMATION

Dear Mr. Schumann:

Under Section 3007 of the Resource Conservation and Recovery Act (RCRA), Title 42 U.S.C. Section 6927, the Environmental Protection Agency (EPA) may require you to furnish information relating to your wastes and waste management practices. Pursuant to Section 3007 of RCRA, for the purposes of determining compliance and possible enforcement, EPA hereby requires that you respond to the following questions in writing within fifteen (15) days of receipt of this letter.

Sections 3004 (d) through (k) and (m) and Section 3005 (j) of RCRA, 42 U.S.C. Section 6924 (d) through (k) and (m) and Section 6925 (j), require the EPA to ban, subject to limitations, or restrict the land disposal of hazardous waste. Prohibitions and restrictions on the management of wastes containing specified solvents became effective on November 7, 1986 (51 Federal Register pg. 40636; November 7, 1987). These prohibitions and restrictions are set forth in 40 CFR Part 268 and in revisions to 40 CFR 260 through 265 and 270.

Your facility has notified the EPA pursuant to the requirements of RCRA that you facility manages hazardous waste as either a generator, transporter, and/or treatment, storage, and disposal facility. These wastes are potentially affected by the new land ban regulations.

Definitions

"You" or "your" refers to your facility, including its officers, employees, and consultants.

A solvent is defined as a substance used to solubilize (dissolve) or mobilize other constituents. A solvent is considered "spent" when it has been used and is no longer fit for use without being regenerated, reclaimed, or otherwise reprocessed. Examples of spent solvents include solvents that are being used as degreasers, cleaners, fabric scourers, diluents, extractants, and reaction and synthesis media. Manufacturing process wastes containing solvents are not spent solvents.

The definitions in RCRA and the RCRA regulations, 40 CFR Parts 260-271 apply.

Information Requested

1. The name of the person with your facility to contact regarding this request, including title, address, and telephone number.
2. State whether at any time after November 7, 1986, you generated, transported, treated, stored, and/or disposed of 1) F001, F002, F003, F004, and/or F005 wastes as defined at 40 CFR Part 261.31, and/or 2) D001 wastes as defined at 40 CFR 261.21, and/or 3) a mixture of any of the aforementioned wastes. If you are unable, based upon information immediately available to you, to determine the designation of your waste, provide information concerning solvent type wastes that you have generated or handled. Examples of solvent type wastes are given in the definitions section of this letter.
3. For each waste identified above, give the rate of generation in pounds per month (lbs./month).
4. For each waste identified above, please provide all chemical analyses, Material Safety Data Sheets, manufacturers information, and any other information used to characterize the waste.
5. For each waste identified above, provide a brief description of the generation, transportation, treatment, storage and/or disposal process(es).
6. For each waste identified above, provide information concerning how the waste was managed from the time the waste was generated or came into your possession up to its final disposition or the time the waste left your possession. This should include copies of all manifests, treatment standard notifications and certifications, servicing agreements, bills of lading, and invoices.

You may, if you desire, assert a business confidentiality claim covering part or all of the information submitted to, or reviewed by, EPA. Such a claim may be made by placing on (or attaching to) the information, at the time of its submittal to, or review by, EPA, a cover sheet, stamped or printed legend, or other suitable form of notice employing language such as "trade secret," "proprietary," or "company confidential." Allegedly confidential portions of otherwise non-confidential documents should be clearly identified and may be submitted separately to facilitate identification and handling by EPA. If confidential treatment is sought only until a certain date or until the occurrence of a certain event, the request should so state.

Information submitted for which a claim of confidentiality is made will be disclosed by EPA only to the extent and by the means authorized by the procedures specified in 40 CFR Part 2, Subpart B (1985), as amended by 50 Federal Register 51654 December 18, 1985. If no such claim is made when information is received by EPA, the information may be made available to the public without further notice.

Please note that you are required to submit this information within fifteen (15) days of receipt of this letter. The response must be submitted to Jacobs Engineering Group Inc., a designated contractor to the EPA. Specifically, you should submit your response to :

Jacobs Engineering Group Inc.
Attn: Terry Hagen
8207 Melrose Drive, Suite 114
Lenexa, KS 66214

Should you require a longer period to respond to the information request, you may be granted, by EPA, a one-time extension of 15 days. To request an extension you must contact your EPA RCRA State Coordinator, Marc Rivas, at 913/236-2891.

Failure to respond to these questions within 15 days of receipt of this letter may subject you to an enforcement action under Section 3008 of RCRA, 42 U.S.C. Section 6928. Such enforcement action may include the assessment of penalties of up to \$25,000 for each day of noncompliance.

Should you have any questions concerning this matter, please contact Terry Hagen or Carla Rellergert at 913/492-9218.

Sincerely yours,



FOR David A. Wagoner
Director
Waste Management Division



Ray Schumann
& Associates, Inc.

1347 January Ave., St. Louis, MO. 63110 (314) 645-8700

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

October 21, 1987

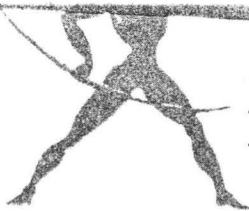
Jacobs Engineering Group Inc.
Attn.: Terry Hagen
3207 Melrose Drive, Suite 114
Lenexa, KS 66214

Gentlemen:

This letter is in reference to your request for information under Section 3007 of the Resource Conservation and Recovery Act (RCRA), Title 42 U.S.C. Section 6927:

The following are herein provided per your request:

- (1) James A. Schumann
Ray Schumann & Associates, Inc.
1347 January Avenue
St. Louis, MO 63110
(314) 645-8700
- (2) We have disposed, generated and stored of wastes F001 and or F005 after November 7, 1986.
- (3) F001 and or F005 the generation rate in pounds per month :
approximately 2,090 lbs.
- (4) Material Safety Data Sheets and manufacturers information are enclosed
- (5) The waste is generated by the process of making photopolymer printing plates. The exposed plate (photomechanically exposed onto the light sensitive photopolymer material) and put into a washout processing machine which contains the mixture of perchloroethylene - 75% and 1-Butanol (Butyl Alcohol) - 25%. After the plate is washed out any spent solution is automatically deposited into the spent solution drum. This drum holds 55 gallons of the spent solution. When the drum is full, it is placed into a holding; the holding has a berm all around and will collect any of the waste material should there be a leak. The initial drum that is connected to the machine and the filled drums of spent solution are visually checked 3 times a day and noted on a specific chart. These drums are then held in our holding area up to 90 days, whereby there comes the transportation phase of the operation.
- (6) After the waste is generated, the filled drums are stored in a holding area specifically designed to hold the waste material. This holding has a berm all around and it will hold all of the contents of any leakage that should occur. This is visually checked 3 times a day and duly noted on our inspection chart. I have enclosed all manifests and certifications concerning these waste disposal arrangements. After the material is sent out for reclamation, we buy back new reclaimed solvent for our operation.



INDUSTRIAL
TESTING
LABORATORIES
inc.

2350 Seventh Blvd.

St. Louis, Missouri 63104

Chemists

Engineers

Metallurgists

314/771-7111

Report No. 89-02-1116

February 23, 1989

Examination of one (1) sample submitted on 2/10/89.

Environmental Property Assessments, Inc.

P. O. Box 799

Maryville, IL 62062

Attn: Mr. Walter Puryear

TEST REPORT

BTU/lb.	17,359
Sulfur, %	<0.01
Chloride, %	7.81

Respectfully submitted,

Allan M. Siegel
Allan M. Siegel, P.E.
Director

Lab No. 138603

L.B. 31943

BB/bjk

Invoice #27464



Department of Pollution Control and Ecology
P. O. Box 9583 Little Rock, Arkansas 72219
Telephone 501-662-7444

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039. Expires 9-30-88

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No.	Manifest Document No.	2. Page 1 of 1	Information in the shaded areas is not required by Federal law.	
3. Generator's Name and Mailing Address RAY SCHUMANN & ASSOCIATES, INC. 1347 JANNARY AVE ST. LOUIS, MO 63110		MO D0109738147100014		A. State Manifest Document Number AR-384617		
4. Generator's Phone (314) 645-8700		6. US EPA ID Number ILD0143746030		B. State Generator's ID N/A		
5. Transporter 1 Company Name TRANSTRUCK		7. Transporter 2 Company Name		C. State Transporter's ID PC-966 H-281		
8. US EPA ID Number		9. Designated Facility Name and Site Address Rineco Chemical Industries 1007 Vulcan Road-Haskell Benton, AR 72015		D. Transporter's Phone (618) 234-3434		
10. US EPA ID Number		11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)		E. State Transporter's ID PC- H-		
12. Containers		13. Total Quantity		14. Unit Wt/Vol		
No. Type		Waste No.				
a. HAZARDOUS WASTE SOLID, N.O.S. ORME N.A. 9189		01020m 01900 P		F002		
b.						
c.						
d.						
L. Additional Descriptions for Materials Listed Above HAZ. TRANSPORTER NO. H-1436		K. Handling Codes for Wastes Listed Above EMERGENCY RESPONSE INFORMATION: CALL JAMES SCHUMANN Home Phone H (314) 842-6179				
If no alternate TSDF, return to generator						
15. Special Handling Instructions and Additional Information MO. HW Doc # 04255-014 MO TRANSPORTER I.D.# H-1436						
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations and Arkansas state regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.						
Printed/Typed Name JAMES A. SCHUMANN		Signature <i>James A. Schumann</i>		Month Day Year 05 09 89		
17. Transporter 1 Acknowledgement of Receipt of Materials		Printed/Typed Name EARL ANDERSON		Signature <i>Earl Anderson</i>		
18. Transporter 2 Acknowledgement of Receipt of Materials		Printed/Typed Name		Signature		
19. Discrepancy Indication Space						
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.						
Printed/Typed Name BRIGGS WILSON		Signature <i>Briggs Wilson</i>		Month Day Year 05 09 89		

GENERATOR NOTIFICATION TO TREATMENT FACILITY
WHERE RESTRICTED WASTE REQUIRES TREATMENT PRIOR TO LAND DISPOSAL

Generator: RAY Schuman & ASSOCIATES, INC.

This Notification is submitted to RINECO CHEMICAL INC. in accordance with regulations effective November 8, 1986 to be promulgated at 40 CFR Section 268.7(a)(1). 40 CFR Section 268.7(a) requires the generator to test his waste or an extract developed using the Toxicity Characteristic Leaching Procedure (TCLP) described in Appendix I of Part 268 51 Fed. Reg. 40,643, or using knowledge of the waste to determine if the waste is restricted from land disposal.

EPA Hazardous Waste No. F001, F002, F003, F004, and F005 are "restricted wastes" and banned from land disposal effective November 8, 1986, unless one or more of the following conditions apply: (1) the generator of the solvent waste is a small quantity generator, (2) the solvent waste is generated from response action taken under CERCLA or corrective action taken under RCRA, or (3) the solvent waste is a solvent-water mixture, solvent-containing sludge or solvent-contaminated soil (non-CERCLA or RCRA corrective action) containing less than 1% (10,000 ppm) total F001-F005 solvent constituents listed in Table CCWE of Section 268.41. (This Table is reprinted on the reverse side).

If a generator determines he is managing a restricted waste and the waste requires treatment prior to land disposal, for each shipment of such waste, the generator must notify the treatment facility in writing of the appropriate treatment standard. This notification must include the information to be provided below.

1. EPA Hazardous Waste Number F-002
2. Corresponding Treatment Standard (see REVERSE SIDE)
3. Manifest Number associated with this shipment of waste AR-384617
4. Waste analysis data, when available (please attach)

I hereby certify that all information submitted in this and all associated documents is complete and accurate to the best of my knowledge and information.

PLEASE BE SURE TO CHECK THE APPROPRIATE BOX(ES) ON THE REVERSE SIDE BEFORE SIGNING

Paul H. Signed (authorized representative of generator)

TREAS.

Title

5/9/89

Date

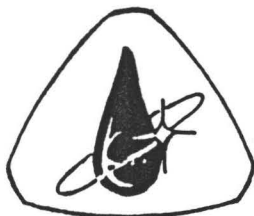
Note: A copy of this Notice must accompany each manifested load as required by 40 CFR 268.7(a)(1).

APPROPRIATE TREATMENT STANDARD

Instructions: For each solvent waste constituent present in your waste shipment, check the appropriate box in front of the applicable treatment standard(s). If based upon best knowledge and information, your waste shipment may contain some or all of the solvent constituents listed below, please mark the appropriate box(es) or the box labeled "All of the above" at the bottom.*

Solvent Constituent	Treatment Standard (mg/l)	
	Wastewaters	All Other Wastes
Acetone	0.05	0.59
n-Butyl alcohol	5.0	5.0
Carbon disulfide	1.05	4.81
Carbon tetrachloride	0.05	0.96
Chlorobenzene	0.15	0.05
Cresols	2.82	0.75
Cresylic acid	2.82	0.75
Cyclohexanone	0.125	0.75
1,2-Dichlorobenzene	0.65	0.125
Ethyl acetate	0.05	0.75
Ethyl benzene	0.05	0.053
Ethyl ether	0.05	0.75
Isobutanol	5.0	5.0
Methanol	0.25	0.75
Methylene chloride	0.20	0.96
Methylene chloride (from pharmaceutical industry)	12.7	0.96
Methyl ethyl ketone	0.05	0.75
Methyl isobutyl ketone	0.05	0.33
Nitrobenzene	0.66	0.125
Pyridine	1.12	0.33
Tetrachloroethylene	0.079	0.05
Toluene	1.12	0.33
1,1,1-Trichloroethane	1.05	0.41
1,2,2-Trichlorotrifluoroethane	1.05	0.96
Trichloroethylene	0.062	0.091
Trichlorofluoromethane	0.05	0.96
Xylene	0.05	0.15
All of the above*		

* Please note that where a generator's determination of the appropriate treatment standard is based upon his knowledge of the waste, the generator must maintain in his operating record all supporting data used to make this determination. See 61 Fed. Reg. at 40,507.



RINECO CHEMICAL INDUSTRIES

1007 Vulcan Road - Haskell, P.O. Box 729, Benton, AR 72015

Phone (501) 778-9089 Fax (501) 778-8505

Rineco Chemical Industries is in the business of handling your waste problems. As a permitted Treatment, Storage, and Disposal Facility, we are set up to handle most flammable and chlorinated waste streams. With the expertise in chemical engineering and experienced personnel, Rineco Chemical Industries can process the most difficult flammable waste streams efficiently.

Services

- * Disposal -- D001, D002, D004, D005, D006
D007, D008, D009, D010, D011,
F001, F002, F003, F005
Solids, Sludges, and Liquids

Destruction By Cement Kiln Firing
-- Organics And Inorganics
-- No Ash

Bulk And Drums

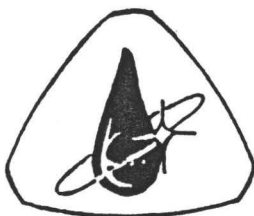
- * Reclamation Of Solvents
-- Custom Recycling

- * Analytical Services

Waste Profiling

Assistance in Waste Classification
for Manifesting and Container
Selection

At Rineco Chemical Industries, we take great pride in servicing our customers' needs and giving them the comforting assurance that their waste has been disposed of properly.



RINECO CHEMICAL INDUSTRIES

1007 Vulcan Road - Haskell, P.O. Box 729, Benton, AR 72015

Phone (501) 778-9089 Fax (501) 778-8505

Rineco Chemical Industries is a fully permitted Waste Disposal Facility utilizing the latest technology approved by the Federal Environmental Protection Agency for disposal of most flammable and chlorinated waste materials.

The technology employed in our processing of waste materials involves blending of the wastes into a fuel which is then used in the manufacturing process for Portland Cement. This results in total destruction of the waste.

The attached pamphlet gives a more detailed listing of services and types of waste we are permitted to process. You will find that our capabilities are much greater than many other disposal facilities as our processing also accommodates the more difficult sludges and solids.

From a liability standpoint, by utilizing our facility, you as a generator have reduced your liability for the waste material to the maximum extent. Drums used to ship your waste are rendered RCRA empty, crushed, shredded and processed through steel mills for recovery of the metal.

Rineco Chemical Industries services also include reclamation of solvents, distillation, and full analytical capabilities.

Whether you have one drum or many, you will find our pricing is very competitive with most other disposal options. Development of a price quote for your specific waste streams requires little effort on your part.

The Midwest office of Rineco Chemical Industries would welcome the opportunity to further discuss how our services can satisfy your waste disposal needs. Contact us at (618) 286-3191.

ATTACHMENT 2
RAY SCHUMANN AND ASSOCIATES, INC.
PHOTOGRAPHS

ATTACHMENT 2

PHOTOGRAPHS

Location:	Ray Schumann and Associates, Inc.
Date:	June 8, 1989
Photographer:	Greg C. Uetrecht, JEG Inspector
Film:	Kodak ASA 200
Camera:	Nikon
Jacobs File:	05C01700
Witness:	Laurie M. Smith, JEG Inspector



RAY SCHUMANN AND ASSOCIATES, INC.

PHOTOGRAPH 1

OFFICIAL PHOTOGRAPH
JACOBS ENGINEERING GROUP INC.

Subject:
Time:

Cyrel 3040 Processor
1055



RAY SCHUMANN AND ASSOCIATES, INC.

PHOTOGRAPH 2

OFFICIAL PHOTOGRAPH
JACOBS ENGINEERING GROUP INC.

Subject: X-35 Recycler
Time: 1056



RAY SCHUMANN AND ASSOCIATES, INC.

PHOTOGRAPH 3

OFFICIAL PHOTOGRAPH
JACOBS ENGINEERING GROUP INC.

Subject:
Time

Hazardous Waste drum storage area
1058

ATTACHMENT 3
LAND DISPOSAL RESTRICTIONS CHECKLIST

Facility Name: Rag Schumann
EPA Id Number: MO D009738147

LAND DISPOSAL RESTRICTION CHECKLIST FOR FY 1989

Form A - Restricted Waste Determination

Note: This form must be completed during all RCRA Compliance Evaluation Inspections (CEIs). Additional forms (B through F) may be required depending on types of wastes generated or handled.

Section I. Wastes restricted on November 7, 1986 (F-solvents and Dioxins)

Check each box that applies (see Appendix A):

*For Small Quantity Generator
also Nov 8, 1988*

<input checked="" type="checkbox"/> F001	<input checked="" type="checkbox"/> F004	<input checked="" type="checkbox"/> F021	<input checked="" type="checkbox"/> F026
<input checked="" type="checkbox"/> F002	<input type="checkbox"/> F005	<input type="checkbox"/> F022	<input type="checkbox"/> F027
<input checked="" type="checkbox"/> F003 ¹ *	<input type="checkbox"/> F020	<input type="checkbox"/> F023	<input type="checkbox"/> F028

- ☐ * Facility does not think this applies, however it may be a issue because of the n-butyl content
- ☐ None of the wastes listed above are handled by the generator. Complete Section II of this form.
- ☒ One or more of the wastes listed above are handled by the generator. Complete Form C - Manifesting Restricted Wastes and Form D - Testing and Management of F-solvents and Dioxins.

¹ Applicable only if waste is ignitable.

Section II. Wastes restricted on July 8, 1987 (California List)

Check each box that applies:

- ☒ Liquid hazardous wastes or liquids associated with solids or sludges containing free cyanides at concentration greater than 1000 mg/L.
- ☐ Liquid hazardous wastes or liquids associated with solids or sludges containing one or more of the following concentrations:
- ☒ Arsenic or compounds containing arsenic greater than 500 mg/L;
- ☒ Cadmium or compounds containing cadmium greater than 100 mg/L;

Facility Name: Ray Schumann
EPA Id Number: MOB009738147

Form A - Restricted Waste Determination (cont'd)

- No*
- ☐ Chromium or compounds containing chromium greater than 500 mg/L;
- ☐ Lead or compounds containing lead greater than 500 mg/L;
- ☐ Mercury or compounds containing mercury greater than 20 mg/L;
- ☐ Nickel or compounds containing nickel greater than 134 mg/L;
- ☐ Selenium or compounds containing selenium greater than 100 mg/L; or
- ☐ Thallium or compounds containing Thallium greater than 130 mg/L.
- ☒ Liquid hazardous wastes exhibiting a pH less than or equal to 2.0.
- ☒ Liquid hazardous wastes that also contain polychlorinated biphenols (PCBs) at concentrations between 50 to 500 mg/L.
- ☒ Liquid or nonliquid hazardous waste containing halogenated organic compounds at concentrations greater than or equal to 1000 mg/Kg. *from F002*
- ☐ None of the wastes listed above are handled by the generator.
Complete Section III of this form.
- ☒ One or more of the wastes listed above are handled by the generator.
Complete Form C - Manifesting Restricted Wastes and Form E - Testing and Management of California List Wastes.

Section III. Wastes restricted on August 8, 1988 (First Third List)

1. Hard Hammer Wastes (see Appendix B)

B. All others

- | <i>No</i> | <i>No</i> | <i>No</i> | <i>No</i> |
|--|--|--|--|
| <input type="checkbox"/> F006 ¹ | <input type="checkbox"/> K001 | <input type="checkbox"/> K004 ¹ | <input type="checkbox"/> K008 ¹ |
| <input type="checkbox"/> K015 | <input type="checkbox"/> K016 | <input type="checkbox"/> K018 | <input type="checkbox"/> K019 |
| <input type="checkbox"/> K020 | <input type="checkbox"/> K021 ¹ | <input type="checkbox"/> K022 ¹ | <input type="checkbox"/> K024 |
| <input type="checkbox"/> K025 ¹ | <input type="checkbox"/> K030 | <input type="checkbox"/> K036 ¹ | <input type="checkbox"/> K037 |

Facility Name: Ray Schumann
EPA Id Number: MOB009738147

Form A - Restricted Waste Determination (cont'd)

No	<input type="checkbox"/> K044	No	<input type="checkbox"/> K045	No	<input type="checkbox"/> K046 ¹	No	<input type="checkbox"/> K047
<input type="checkbox"/>	K048 ²	<input type="checkbox"/>	K049 ²	<input type="checkbox"/>	K050 ²	<input type="checkbox"/>	K051 ²
<input type="checkbox"/>	K052 ²	<input type="checkbox"/>	K060 ¹	<input type="checkbox"/>	K061 ¹	<input type="checkbox"/>	K062
<input type="checkbox"/>	K069 ¹	<input type="checkbox"/>	K071	<input type="checkbox"/>	K083 ¹	<input type="checkbox"/>	K086 ³
<input type="checkbox"/>	K087	<input type="checkbox"/>	K099	<input type="checkbox"/>	K100 ¹	<input type="checkbox"/>	K101 ⁴
<input type="checkbox"/>	K102 ⁴	<input type="checkbox"/>	K103	<input type="checkbox"/>	K104		

¹ Nonwastewaters only, wastewaters have been soft hammered.

² National Capacity Extension through May, 1990.

³ Solvent-wash subcategory, other subcategories have been soft hammered.

⁴ All wastewaters and nonwastewaters with less than 1% total As, high As wastewaters have been soft hammered.

2. Soft Hammer Wastes (see Appendix C)

A. Wastewaters only

No	<input type="checkbox"/> F006	No	<input type="checkbox"/> K004	No	<input type="checkbox"/> K008	No	<input type="checkbox"/> K021
<input type="checkbox"/>	K022	<input type="checkbox"/>	K025	<input type="checkbox"/>	K036	<input type="checkbox"/>	K046
<input type="checkbox"/>	K060	<input type="checkbox"/>	K061	<input type="checkbox"/>	K069	<input type="checkbox"/>	K083
<input type="checkbox"/>	K086	<input type="checkbox"/>	K100	<input type="checkbox"/>	K101	<input type="checkbox"/>	K102

B. All others

No	<input type="checkbox"/> F007	No	<input type="checkbox"/> F008	No	<input type="checkbox"/> F009	No	<input type="checkbox"/> F019
<input type="checkbox"/>	K011	<input type="checkbox"/>	K013	<input type="checkbox"/>	K014	<input type="checkbox"/>	K017
<input type="checkbox"/>	K031	<input type="checkbox"/>	K035	<input type="checkbox"/>	K036	<input type="checkbox"/>	K069
<input type="checkbox"/>	K073	<input type="checkbox"/>	K083	<input type="checkbox"/>	K084	<input type="checkbox"/>	K085
<input type="checkbox"/>	K086	<input type="checkbox"/>	K101 ¹	<input type="checkbox"/>	K102 ¹	<input type="checkbox"/>	K106

Facility Name: Ray Schumann
EPA Id Number: MO0009738147

Form A - Restricted Waste Determination (cont'd)

<i>No</i>	<input type="checkbox"/>	P001	<i>No</i>	<input type="checkbox"/>	P004	<i>No</i>	<input type="checkbox"/>	P005	<i>No</i>	<input type="checkbox"/>	P010
	<input type="checkbox"/>	P011		<input type="checkbox"/>	P012		<input type="checkbox"/>	P015		<input type="checkbox"/>	P016
	<input type="checkbox"/>	P018		<input type="checkbox"/>	P020		<input type="checkbox"/>	P030		<input type="checkbox"/>	P036
	<input type="checkbox"/>	P037		<input type="checkbox"/>	P039		<input type="checkbox"/>	P041		<input type="checkbox"/>	P048
	<input type="checkbox"/>	P050		<input type="checkbox"/>	P058		<input type="checkbox"/>	P059		<input type="checkbox"/>	P063
	<input type="checkbox"/>	P068		<input type="checkbox"/>	P069		<input type="checkbox"/>	P070		<input type="checkbox"/>	P071
	<input type="checkbox"/>	P081		<input type="checkbox"/>	P082		<input type="checkbox"/>	P084		<input type="checkbox"/>	P087
	<input type="checkbox"/>	P089		<input type="checkbox"/>	P092		<input type="checkbox"/>	P094		<input type="checkbox"/>	P097
	<input type="checkbox"/>	P102		<input type="checkbox"/>	P105		<input type="checkbox"/>	P108		<input type="checkbox"/>	P110
	<input type="checkbox"/>	P115		<input type="checkbox"/>	P120		<input type="checkbox"/>	P122		<input type="checkbox"/>	P123
	<input type="checkbox"/>	U007		<input type="checkbox"/>	U009		<input type="checkbox"/>	U010		<input type="checkbox"/>	U012
	<input type="checkbox"/>	U016		<input type="checkbox"/>	U018		<input type="checkbox"/>	U019		<input type="checkbox"/>	U022
	<input type="checkbox"/>	U029		<input type="checkbox"/>	U031		<input type="checkbox"/>	U036		<input type="checkbox"/>	U037
	<input type="checkbox"/>	U041		<input type="checkbox"/>	U043		<input type="checkbox"/>	U044		<input type="checkbox"/>	U046
	<input type="checkbox"/>	U050		<input type="checkbox"/>	U051		<input type="checkbox"/>	U053		<input type="checkbox"/>	U061
	<input type="checkbox"/>	U063		<input type="checkbox"/>	U064		<input type="checkbox"/>	U066		<input type="checkbox"/>	U067
	<input type="checkbox"/>	U074		<input type="checkbox"/>	U077		<input type="checkbox"/>	U078		<input type="checkbox"/>	U086
	<input type="checkbox"/>	U089		<input type="checkbox"/>	U103		<input type="checkbox"/>	U105		<input type="checkbox"/>	U108
	<input type="checkbox"/>	U115		<input type="checkbox"/>	U122		<input type="checkbox"/>	U124		<input type="checkbox"/>	U129
	<input type="checkbox"/>	U130		<input type="checkbox"/>	U133		<input type="checkbox"/>	U134		<input type="checkbox"/>	U137
	<input type="checkbox"/>	U151		<input type="checkbox"/>	U154		<input type="checkbox"/>	U155		<input type="checkbox"/>	U157
	<input type="checkbox"/>	U158		<input type="checkbox"/>	U159		<input type="checkbox"/>	U171		<input type="checkbox"/>	U177

Facility Name: Ray Schumann
EPA Id Number: MD009738147

Form A - Restricted Waste Determination (cont'd)

<u>No</u>	<input type="checkbox"/>	U180	<u>No</u>	<input type="checkbox"/>	U185	<u>No</u>	<input type="checkbox"/>	U188	<u>No</u>	<input type="checkbox"/>	U192
	<input type="checkbox"/>	U200		<input type="checkbox"/>	U209		<input type="checkbox"/>	U210		<input type="checkbox"/>	U211
	<input type="checkbox"/>	U219		<input type="checkbox"/>	U220		<input type="checkbox"/>	U221		<input type="checkbox"/>	U223
	<input type="checkbox"/>	U226		<input type="checkbox"/>	U227		<input type="checkbox"/>	U228		<input type="checkbox"/>	U237
	<input type="checkbox"/>	U238		<input type="checkbox"/>	U248		<input type="checkbox"/>	U249			

1 Nonwastewaters with greater than 1% As.



None of the wastes listed above are handled by the generator.
Complete Section VI of this form.



One or more of the wastes listed above are handled by the generator.
Complete Form C - Manifesting Restricted Wastes and Form F - Testing
and Management of First Third List Wastes.

Section IV. Wastes restricted on June 8, 1989 (Second Third)

None present on-site

Section V. Wastes restricted on May 8, 1990 (Last Third)

NONE present on-site

Section VI. BDAT Treatability Group - Treatment Standards Identification.

1. Does the generator mix restricted wastes which have
different treatment standards ?

___ Yes ☒ No

If yes,

- A. Did the generator select the most stringent treatment
standard ?

___ Yes ___ No

Facility Name: Ray Schumann
EPA Id Number: MO0009738147

LAND DISPOSAL RESTRICTION CHECKLIST FOR FY 1989

Form B - Treatment, Storage and Disposal

N.A.

Note: This form should be completed only if the generator or handler stores restricted wastes onsite for greater than 90 days or operates RCRA-regulated treatment or disposal units. Small quantity generators who accumulate restricted wastes for less than 180(270) days are exempt from the following requirements.

Section I. General facility standards

1. Has the facility's waste analysis plan been revised in accordance 264.13(b)(6) or 265.13(b)(6) to reflect requirements under 268.7 ? ☐ Yes ☐ No

2. Has the facility obtained representative chemical and physical analysis of wastes and residues in accordance to 264.13 or 265.13 ? ☐ Yes ☐ No

if yes,

A. Chemical and physical analyses of F-solvents and Dioxins

i. Has testing included analyses for all F-solvent constituents ? ☐ Yes ☐ No

ii. Were all F-solvent constituents analyzed by employing the Toxicity Characteristic Leaching Procedure (TCLP) ? ☐ Yes ☐ No

B. Chemical and physical analyses of California List wastes

i. Were the following analyses conducted on California List wastes:

a. pH ? ☐ Yes ☐ No

b. Concentrations of PCBs ? ☐ Yes ☐ No

c. Concentration of Halogenated Organic Compounds ? ☐ Yes ☐ No

d. Heavy Metal concentration ? ☐ Yes ☐ No

e. Cyanide concentration ? ☐ Yes ☐ No

Facility Name: Ray Schumann
EPA Id Number: MO D009 738147

Form B - Treatment, Storage and Disposal (cont'd)

C. Chemical and physical analyses of First Third List Wastes

- i. Has the facility tested wastes with established treatment standards (hard hammer wastes) ? ☐ Yes ☐ No

if yes,

- a. List these wastes and the test procedures used to determine concentrations below:

3. Were these analyses conducted onsite or offsite ? ☐

A. If offsite, identify lab: ☐

4. Describe the frequency of sampling restricted wastes below:

Attach copy of most recent waste analysis.

Section II. Storage of Restricted Wastes

1. Have restricted wastes exceeding treatment standards been stored ? ☐ Yes ☐ No

if yes,

- A. Have all containers been clearly marked to identify contents and date(s) entering storage ? ☐ Yes ☐ No

- B. Do operating records track location, quantity, and dates that restricted wastes entered and were removed from storage ? ☐ Yes ☐ No

- C. Do records agree with container labeling ? ☐ Yes ☐ No

- D. Are restricted wastes stored for less than 1 year ? ☐ Yes ☐ No

- E. Have tanks been emptied at least once per year, and do operating records show that volumes of restricted wastes removed from tanks at least equal tank volume ? ☐ Yes ☐ No

Facility Name: Ray Schumann
EPA Id Number: MD 009738147

Form B - Treatment, Storage and Disposal (cont'd)

- F. Have restricted wastes been stored for more than one year ? ☐ Yes ☐ No
- i. If yes, can the owner/operator demonstrate that the purpose of such storage has been solely conducted for accumulating sufficient quantities of restricted wastes to facilitate proper recovery, treatment, or disposal ? ☐ Yes ☐ No

Section III. Storage or treatment in surface impoundments

1. Have restricted wastes exceeding treatment standards been placed in surface impoundments ? ☐ Yes ☐ No
- A. If yes, have these wastes and their residues been removed at least annually ? ☐ Yes ☐ No
- B. If no, skip the remainder of this section.
2. Have these wastes been placed for treatment ? ☐ Yes ☐ No
- A. If yes, describe treatments processes below:
-
-
-
3. Is the only recognizable "treatment" occurring in the impoundment either evaporation, dilution, or both ? ☐ Yes ☐ No
4. Did the facility submit a certification of compliance with minimum technology and groundwater monitoring requirements, and the waste analysis plan to the Agency ? ☐ Yes ☐ No
5. Have minimum technology requirements been met ? ☐ Yes ☐ No
- A. If no, have waivers been granted for each restricted waste management unit ? ☐ Yes ☐ No
6. Have all 264/265 Subpart F groundwater monitoring requirements been met ? ☐ Yes ☐ No

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Form B - Treatment, Storage and Disposal (cont'd)

7. Have representative samples of sludge and supernatant from applicable surface impoundments been tested adequately and in accordance with sampling frequency and analysis specified in the waste analysis plan ? ☐ Yes ☐ No
- A. Are test results maintained in the operating record ? ☐ Yes ☐ No
- B. Did hazardous waste residues (i.e. sludge or liquid) exceed treatment standards as specified in 268.41 ? ☐ Yes ☐ No
- C. Provide the frequency of analyses conducted on treatment residues below:
- _____
- _____
- D. Do operating records adequately document results of waste analyses performed in accordance with 268.41 ? ☐ Yes ☐ No
8. Has supernatant been determined to exceed treatment standards ? ☐ Yes ☐ No
- A. If yes, is annual throughput greater than surface impoundment volume ? ☐ Yes ☐ No
9. If residues were removed annually, have adequate precautions been taken to protect liners and do records indicate that inspections of liner integrity are performed ? ☐ Yes ☐ No
10. When removed, were solvent wastes managed subsequently in another surface impoundment ? ☐ Yes ☐ No
11. When removed, were wastes treated prior to disposal ? ☐ Yes ☐ No
- A. If yes, are waste residues treated onsite or offsite ? _____
- B. Describe management method below:
- _____
- _____
- _____

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Form B - Treatment, Storage and Disposal (cont'd)

Section IV. RCRA-regulated Treatment (not including surface impoundments)

1. Did the facility operate treatment facilities for restricted wastes ? ☐ Yes ☐ No

If no, skip the rest of Section IV.

2. Describe processes for each restricted waste treated onsite:

3. Does the facility treat soft hammer wastes ? ☐ Yes ☐ No

If yes,

- A. Is treatment occurring as described in the facility's certification/demonstration ? ☐ Yes ☐ No

- B. Did the treatment facility certify all soft hammer waste as per the facility's demonstration and maintain copies of all certifications ? ☐ Yes ☐ No

- C. Did the facility send a copy of the demonstration and certification to the receiving treatment, recovery, or storage facility ? ☐ Yes ☐ No

4. Does the treatment facility test the treatment residuals in accordance with an acceptable waste analysis plan ? ☐ Yes ☐ No

5. Do treatment residuals exceed treatment standards ? ☐ Yes ☐ No

If yes,

- A. Describe processes used to handle those residuals ?

- B. Describe the frequency of testing of treatment residuals below:

6. Was dilution used as a substitute for treatment ? ☐ Yes ☐ No

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Form B - Treatment, Storage and Disposal (cont'd)

7. Are certifications and results of waste analyses kept in the operating record ? ☐ Yes ☐ No

If any treatment residuals were shipped offsite for further treatment or disposal, complete Form C - Manifesting Restricted Wastes.

Section V. Land Disposal

1. Were restricted wastes placed in land disposal units (i.e. surface impoundments, waste piles, wells, land treatment units, salt domes/beds, mines/caves, concrete vaults, or bunkers) for other than treatment purposes ? ☐ Yes ☐ No
2. Did the facility have appropriate notices or certifications from generators or treatment facilities in its operating record [268.7(a-b)] ? ☐ Yes ☐ No
3. Did the facility obtain waste analyses of restricted wastes to determine if such wastes were in compliance with applicable treatment standards [268.7(c)] ? ☐ Yes ☐ No
4. Were restricted wastes exceeding the applicable treatment standards or prohibition levels placed in land disposal units excluding national capacity variances ? ☐ Yes ☐ No

If yes,

- A. Did the facility have an approved waiver based on "no migration" petition, approved case-by-case, capacity extension, or treatment standard variance ? ☐ Yes ☐ No
5. Were restricted wastes, subject to national or case-by-case capacity variances or extensions, disposed ? ☐ Yes ☐ No

If yes,

- A. Were these wastes disposed of in a hazardous waste management unit that meets minimum technology requirements ? ☐ Yes ☐ No
6. Are adequate records of disposal maintained ? ☐ Yes ☐ No

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Form B - Treatment, Storage and Disposal (cont'd)

7. If wastes subject to nationwide variances, case-by-case extensions, or no migration petitions were disposed, does the facility have notices and records of disposal ? ☐ Yes ☐ No

8. If the facility has a case-by-case extension, is there data available to verify that the facility is making progress as described in progress reports ? ☐ Yes ☐ No

9. If the facility is disposing of a soft hammer waste, are notices or certifications maintained onsite ? ☐ Yes ☐ No

If yes,

A. Could any of these wastes be classified as California List wastes ? ☐ Yes ☐ No

B. Did the facility seek to verify whether these wastes are subject to all restrictions ? ☐ Yes ☐ No

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LAND DISPOSAL RESTRICTION CHECKLIST FOR FY 1989

Form C - Manifesting Restricted Wastes

Note: This form should be completed only if the generator or handler ships restricted waste offsite for treatment or disposal. The following requirements may also apply to treatment facilities (including incinerators) which ship residues, still bottoms, or ash offsite for additional treatment or disposal.

1. If restricted wastes which exceed treatment standards, and are not subject to case-by-case extensions, "no migration" exemption, or nationwide variance, did the generator or handler provide the following information along with each hazardous waste manifest during shipment:

A. Manifest document number ?

☒ Yes ☐ No

B. EPA waste identification code ?

☒ Yes ☐ No

C. Treatment standards for each restricted waste ?

☒ Yes ☐ No

D. Waste analysis data (if available) ?

☒ Yes ☐ No

E. All applicable restrictions ?

☒ Yes ☐ No

Notice: Restricted wastes which exceed treatment standards may only be sent for treatment (including incineration). Such wastes are prohibited from land disposal, unless there is a variance or extension applicable to the waste.

2. Identify all offsite treatment facilities accepting wastes exceeding treatment standards:

RienCO - Benton, Ark Since 11-8-89

3. If restricted wastes do not exceed treatment standards, are subject to case-by-case extension, have a "no migration" exemption, or a nationwide variance, did the generator or handler provide the following information along with each hazardous waste manifest during shipment:

A. Manifest document number ?

☐ Yes ☐ No

N.A.

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Form C - Manifesting Restricted Wastes (cont'd)

- B. EPA waste identification code ? ☐ Yes ☐ No
- C. Treatment standards for each restricted waste ? ☐ Yes ☐ No
- D. Waste analysis data (if available) ? ☐ Yes ☐ No
- E. All applicable restrictions ? ☐ Yes ☐ No
- F. Date the wastes are subject to restrictions ? ☐ Yes ☐ No
- G. The following certification ? ☐ Yes ☐ No

I certify under penalty of law that I personally have examined and am familiar with the waste through analysis and testing or through knowledge of the waste to support this certification that the waste complies with the treatment standards specified in 40 CFR Part 268 Subpart D. I believe that the information I submitted is true, accurate and complete. I am aware that there are significant penalties for submitting a false certification, including the possibility of imprisonment.

Notice: The above certification statement must be signed by an authorized representative of the facility.

4. Identify all offsite treatment or disposal facilities accepting wastes below treatment standards:

5. If waste is subject to a nationwide variance (e.g. solvent-water mixtures less than 1%), extension or petition has the facility provided notice to disposers that waste is exempt from land disposal restrictions ?

N/A
☐ Yes ☐ No

6. Does the generator or handler keep records of all notifications or certifications for waste sent to offsite facilities after August 16, 1988 ?

☒ ^{*} Yes ☒ No Yes

Self
November 8, 1988
for Sm. Quantity Generator ?

* A Fax copy was sent during inspection.

Facility Name: Ray Schumann
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LAND DISPOSAL RESTRICTION CHECKLIST FOR FY 1989

Form D - Testing and Management of F-solvents and Dioxins

Note: This form should be completed only if the facility generates or handles F-solvents or Dioxin wastes regardless of concentrations.

1. Has the facility correctly determined the appropriate treatability group [268.41] for F-solvents generated or handled onsite (see Appendix A) ? ☒ Yes ☐ No

2. Has the facility determined whether F-solvent wastes exceed treatment standards based on the following:

A. Knowledge of process ? ☒ Yes ☐ No

i. If facility employs knowledge of process, note adequacies or inadequacies in their methods below:

FROM LABORATORY DATA, Supplier DATA - ie MSDS, OTHER

B. Toxicity Characteristic Leaching Process (TCLP) ? ☐ Yes ☒ No

i. If yes, provide the following information:

a. Last test date: _____

b. Frequency of testing: _____

c. Indicate any problems with testing procedure below:

ii. Attach test results to report.

iii. Were wastes tested using TCLP when processes or wastestreams changed ? ☐ Yes ☐ No

iv. Was testing done prior to dilution or solidification ? ☐ Yes ☐ No

C. Other (specify): _____

3. Did F-solvent wastes exceed their applicable treatment standards upon generation [268.7(a)(2)] ? ☒ Yes ☐ No

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Form D - Testing and Management of F-solvents and Dioxins (cont'd)

4. Did the facility dilute the waste or treatment residuals as a substitute for adequate treatment [268.3] ? Yes ☒ No
5. Were treatment residuals generated from (264/265) RCRA-exempt units or processes ? Yes ☒ No

If yes,

A. List the type(s) of treatment and unit(s) below:

Note: If the residuals from a RCRA-exempt treatment unit are above the treatment standards, the owner/operator is considered a generator of restricted waste. The inspector should determine whether the generator requirements, particularly waste identification requirements, have been met for the treatment residuals.

6. Have F-solvents or dioxin wastes been stored for greater than 90 days ? Yes ☒ No

If yes,

A. Is facility operating under interim status or final permit ? Yes ☐ No ☐

If the answer was yes for either 6 or 6A, complete Form B - Treatment, Storage and Disposal.

Inspector's Initials: gcl